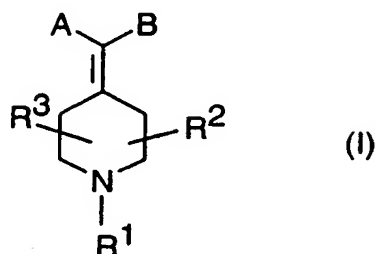


CLAIMS

1. A compound of the general formula (I)



$R^1$  is selected from

hydrogen, a branched or straight  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkenyl,  $C_3$ - $C_8$  cycloalkyl,

$C_4$ - $C_8$ (alkyl-cycloalkyl) wherein alkyl is  $C_1$ - $C_2$  alkyl and cycloalkyl is  $C_3$ - $C_6$  cycloalkyl;

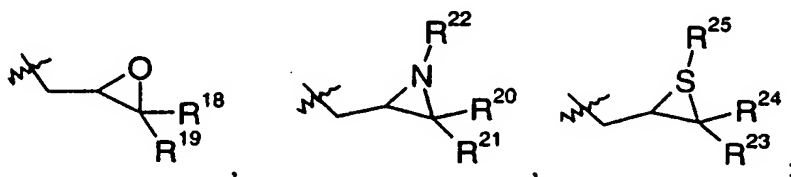
$C_6$ - $C_{10}$  aryl; or heteroaryl having from 5 to 10 atoms selected from any of C, S, N and O; wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents independently selected from any of hydrogen,  $CH_3$ ,  $-(CH_2)_pCF_3$ , halogen,

$-CONR^5R^4$ ,  $-COOR^5$ ,  $-COR^5$ ,  $-(CH_2)_pNR^5R^4$ ,  $-(CH_2)_pCH_3(CH_2)_pSOR^5R^4$ ,

$-(CH_2)_pSO_2R^5$ , and  $-(CH_2)_pSO_2NR^5$ , wherein  $R^4$  and  $R^5$  is each and independently as defined for  $R^1$  above and p is 0, 1 or 2;

$(C_1$ - $C_2$  alkyl)-( $C_6$ - $C_{10}$  aryl); or  $(C_1$ - $C_2$  alkyl)heteroaryl, the heteroaryl moieties having from 5 to 10 atoms selected from any of C, S, N and O, and where the aryl or heteroaryl may optionally and independently be substituted by 1 or 2 substituents independently selected from any of hydrogen,  $CH_3$ ,  $-(CH_2)_qCF_3$ , halogen,  $-CONR^5R^4$ ,  $-COOR^5$ ,  $-COR^5$ ,  $-(CH_2)_qNR^5R^4$ ,  $-(CH_2)_qCH_3(CH_2)_qSOR^5R^4$ ,  $-(CH_2)_qSO_2R^5$ ,

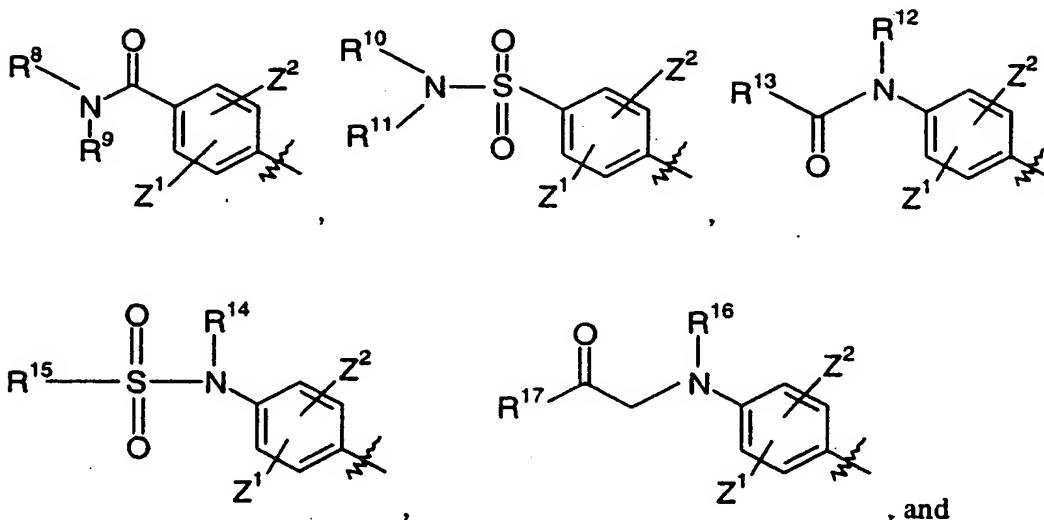
$-(CH_2)_qSO_2NR^5$  and  $-(CH_2)_pOR^5$ , wherein  $R^4$  and  $R^5$  is each and independently as defined for  $R^1$  above and  $q$  is 0, 1 or 2; and



5 wherein  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$ ,  $R^{22}$ ,  $R^{23}$ ,  $R^{24}$  and  $R^{25}$  is each and independently hydrogen,  $C_1$ - $C_6$  alkyl or  $C_1$ - $C_6$  alkenyl;

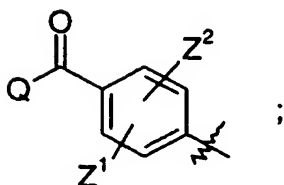
$R^2$  and  $R^3$  is each and independently hydrogen or  $C_1$ - $C_6$  alkyl;

10 A is selected from



, and

15



wherein  $R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}$  and  $R^{17}$  is each and independently as defined for  $R^1$  above, and wherein the phenyl ring of each A substituent may be optionally and independently substituted at any position of the phenyl ring by 1 or 2 substituents  $Z^1$  and  $Z^2$  which are each and independently selected from hydrogen,  $CH_3$ ,  $-(CH_2)_qCF_3$ ,  
 5 halogen,  $-CONR^6R^7$ ,  $-COOR^6$ ,  $-COR^6$ ,  $-(CH_2)_rNR^6R^7$ ,  $-(CH_2)_rCH_3(CH_2)_rSOR^6$ ,  $-(CH_2)_rSO_2R^6$  and  $-(CH_2)_rSO_2NR^6R^7$  wherein  $R^6$  and  $R^7$  is each and independently as defined for  $R^1$  above and  $r$  is 0, 1, or 2;

Q is  $C_5$ - $C_6$  hydroaryl or heterohydroaromatic having 5 or 6 atoms selected from anyone of  
 10 C, S, N and O;  $C_5$ - $C_6$  cycloalkyl, or heterocycloalkyl having 5 or 6 atoms selected from anyone of C, N, O and S; and where each Q may optionally be substituted by a substituent  $Z^1$  and  $Z^2$  as defined above;

15 B is

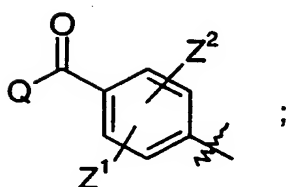
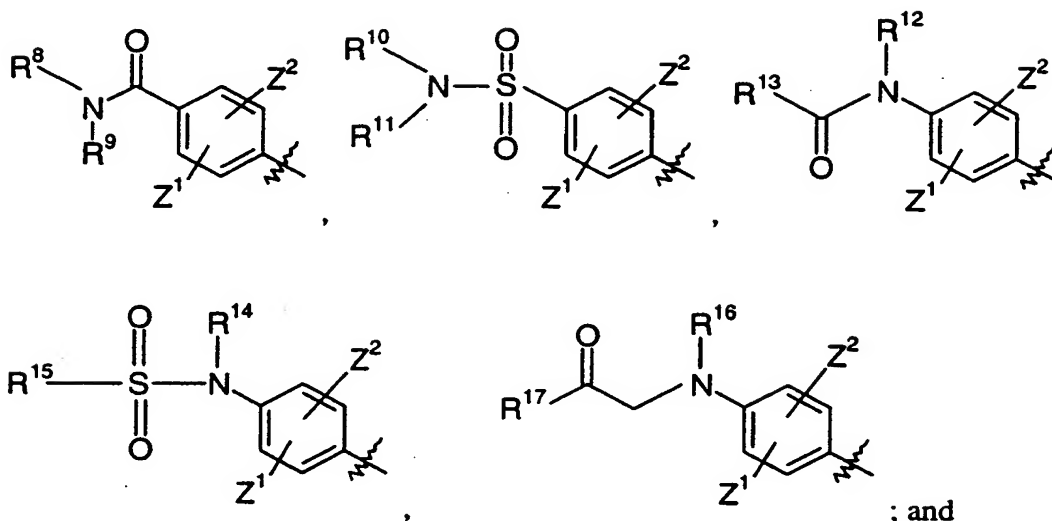
a substituted or unsubstituted aromatic, heteroaromatic, hydroaromatic or heterohydroaromatic moiety having from 5 to 10 atoms selected from any of C, S, N and O, optionally and independently substituted by 1 or 2 substituents independently selected from  
 20 hydrogen,  $CH_3$ ,  $-(CH_2)_tCF_3$ , halogen,  $-(CH_2)_tCONR^5R^4$ ,  $-(CH_2)_tNR^5R^4$ ,  $-(CH_2)_tCOR^5$ ,  $-(CH_2)_tCOOR^5$ ,  $-OR^5$ ,  $-(CH_2)_tSOR^5$ ,  $-(CH_2)_tSO_2R^5$ , and  $-(CH_2)_tSO_2NR^5R^4$ , wherein  $R^4$  and  $R^5$  is each and independently as defined for  $R^1$  above, and  $t$  is 0, 1, 2 or 3;

25  $R^4$  and  $R^5$  is each and independently as defined for  $R^1$  above;

as well as pharmaceutically acceptable salts of the compounds of the formula (I), and isomers, hydrates, isoforms and prodrugs thereof.

2. A compound of the formula (I) according to claim 1, wherein

A is selected from



wherein  $R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}$  and  $R^{17}$  is each and independently as defined for  $R^1$  above, and wherein the phenyl ring of each A substituent may be optionally and independently substituted at any position of the phenyl ring by 1 or 2 substituents  $Z^1$  and  $Z^2$  which are each and independently selected from hydrogen,  $CH_3$ ,  $-(CH_2)_qCF_3$ , halogen,  $-CONR^6R^7$ ,  $-COOR^6$ ,  $-COR^6$ ,  $-(CH_2)_rNR^6R^7$ ,  $-(CH_2)_rCH_3(CH_2)_rSOR^6$ ,  $-(CH_2)_rSO_2R^6$  and  $-(CH_2)_rSO_2NR^6R^7$  wherein  $R^6$  and  $R^7$  is each and independently as defined for  $R^1$  above, and  $r$  is 0, 1, or 2;

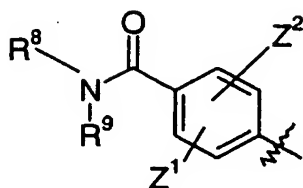
Q is selected from morpholine, piperidine and pyrrolidine;

$R^1$ ,  $R^4$ , and  $R^5$  is each and independently selected from hydrogen, a branched or straight  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_5$  cycloalkyl,  $C_4$ - $C_8$  (alkyl-cycloalkyl) wherein alkyl is  $C_1$ - $C_2$  alkyl and cycloalkyl is  $C_3$ - $C_6$  cycloalkyl;  $C_6$ - $C_{10}$  aryl; and heteroaryl having from 5 to 6 atoms selected from any of C, S, N and O; and where the aryl or heteroaryl may optionally and independently be substituted by 1 or 2 substituents independently selected from any of hydrogen,  $CH_3$ ,  $-(CH_2)_pCF_3$ , halogen,  $-CONR^5R^4$ ,  $-COOR^5$ ,  $-COR^5$ ,  $-(CH_2)_pNR^5R^4$ ,  $-(CH_2)_pCH_3(CH_2)_pSOR^5R^4$ ,  $-(CH_2)_pSO_2R^5$ , and  $-(CH_2)_pSO_2NR^5$ , wherein  $R^4$  and  $R^5$  is each and independently as defined for  $R^1$  above and p is 0, 1 or 2;

B is selected from phenyl, naphthyl, indolyl, benzofuranyl, dihydrobenzofuranyl, benzothiophenyl, pyrrol, furanyl, quinolinyl, isoquinolinyl, cyclohexyl, cyclohexenyl, cyclopentyl, cyclopentenyl, indanyl, indenyl, tetrahydronaphthyl, tetrahydroquinyl, tetrahydroisoquinolinyl, tetrahydrofuranyl, pyrrolidinyl, and indazolyl, each optionally and independently substituted by 1 or 2 substituents independently selected from hydrogen,  $CH_3$ ,  $CF_3$ , halogen,  $-(CH_2)_qCONR^5R^4$ ,  $-(CH_2)_qNR^5R^4$ ,  $-(CH_2)_qCOR^5$ ,  $-(CH_2)_qCO_2R^5$ , and  $-OR^5$ , wherein q is 0 or 1, and wherein  $R^4$  and  $R^5$  are as defined above;

$R^2$  and  $R^3$  is each and independently hydrogen or methyl.

3. A compound of the formula (I) according to claim 2, wherein  
A is



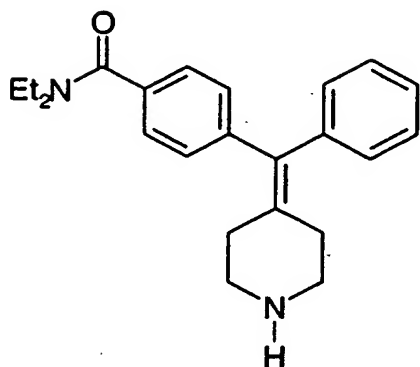
wherein  $R^8$  and  $R^9$  are both ethyl, and where the phenyl ring optionally and independently may be substituted at any position of the phenyl ring by 1 or 2 substituents  $Z^1$  and  $Z^2$  which are each and independently selected from hydrogen,  $CH_3$ ,  $-(CH_2)_qCF_3$ , halogen,  
10  $—CONR^6R^7$ ,  $—COOR^6$ ,  $—COR^6$ ,  $—(CH_2)_rNR^6R^7$ ,  $—(CH_2)_rCH_3(CH_2)_rSOR^6$ ,  
 $—(CH_2)_rSO_2R^6$  and  $—(CH_2)_rSO_2NR^6R^7$  wherein  $R^6$  and  $R^7$  is each and independently as defined for  $R^1$  above and  $r$  is 0, 1, or 2;

$R^1$  is selected from hydrogen, methyl, ethyl,  $—CH_2CH=CH_2$ ,  $—CH_2$ -cyclopropyl,  
15  $—CH_2$ -aryl, or  $CH_2$ -heteroaryl, the heteroaryl moieties having from 5 to 6 atoms selected from any of C, S, N and O;

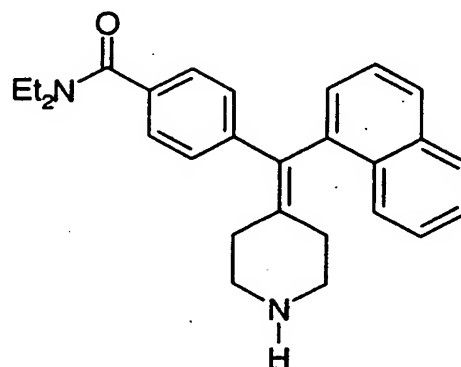
B is selected from phenyl, naphthyl, indolyl, benzofuranyl, dihydrobenzofuranyl, benzothiophenyl, furanyl, quinoliny, isoquinoliny, cyclohexyl, cyclohexenyl, cyclopentyl,  
20 cyclopentenyl, indanyl, indenyl, tetrahydronaphthyl, tetrahydroquinyl, tetrahydroisoquinoliny, tetrahydrofuranyl, and indazoliny, each optionally and independently substituted by 1 or 2 substituents independently selected from hydrogen,  $CH_3$ ,  $CF_3$ , halogen,  $—(CH_2)_qCONR^5R^4$ ,  $—(CH_2)_qNR^5R^4$ ,  $—(CH_2)_qCOR^5$ ,  $—(CH_2)_qCO_2R^5$ , and  $—OR^5$ , wherein  $q$  is 0 or 1, and wherein  $R^4$  and  $R^5$  are as defined  
25 above; and

$R^2$  and  $R^3$  is each and independently hydrogen or methyl.

4. A compound of the formula (I) according to claim 1, which compound is any of

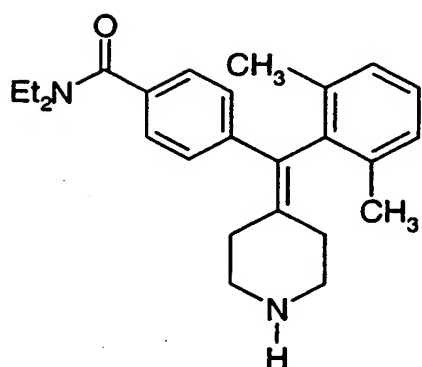


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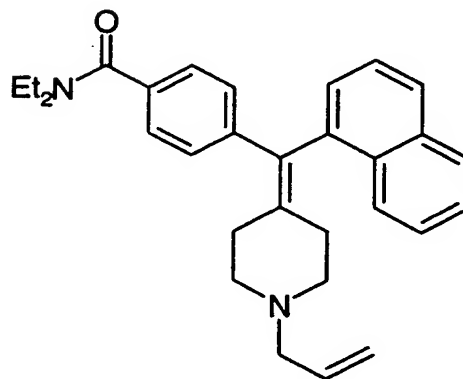


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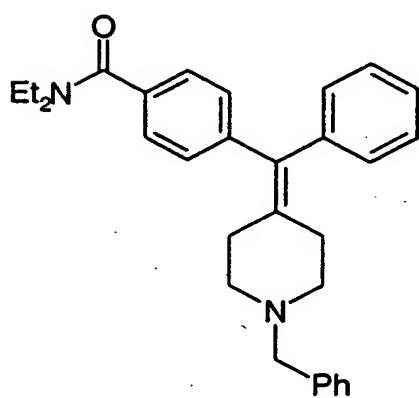
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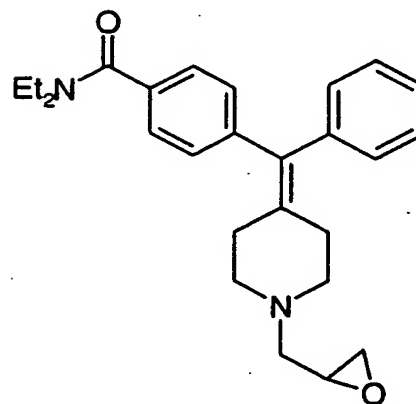
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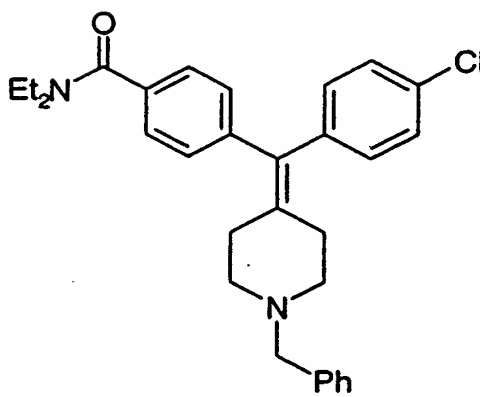
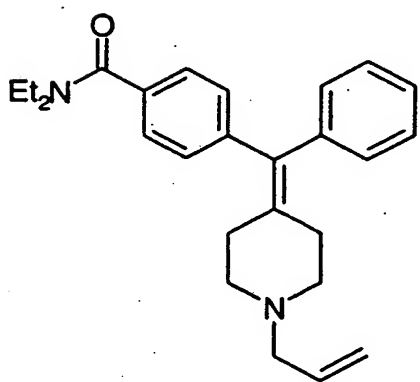
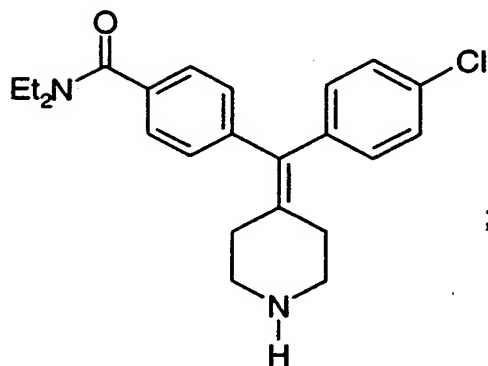
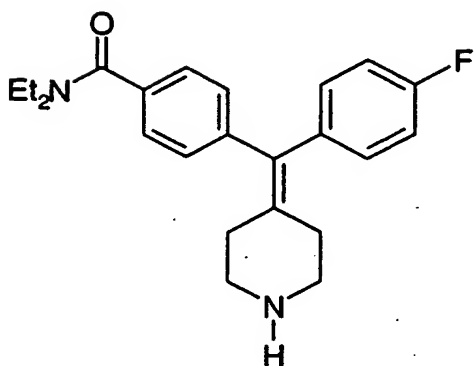
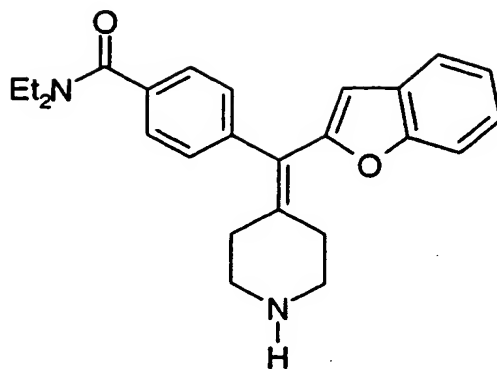
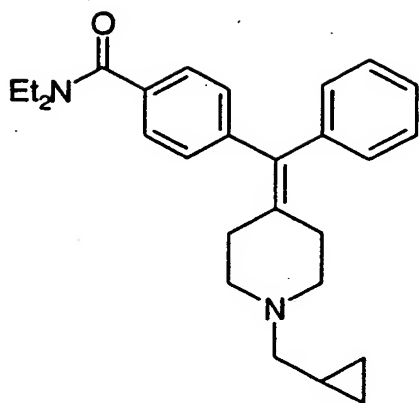


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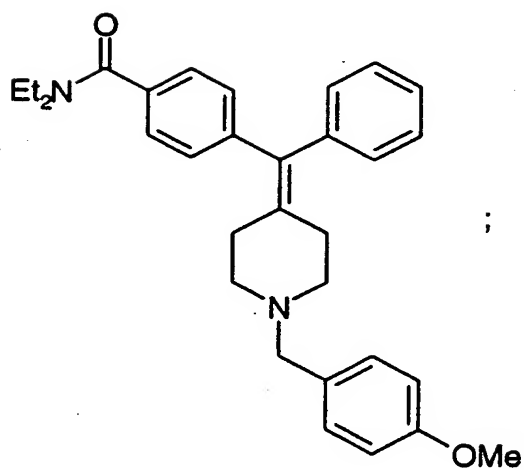
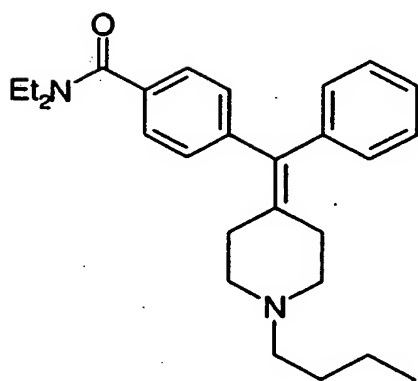
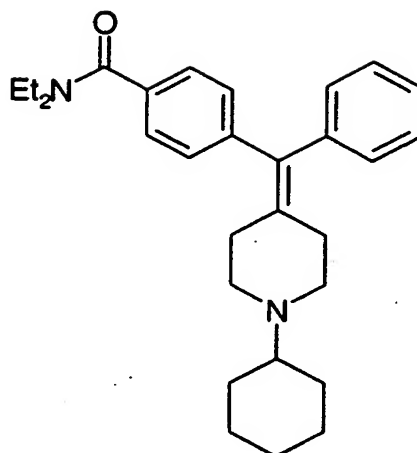
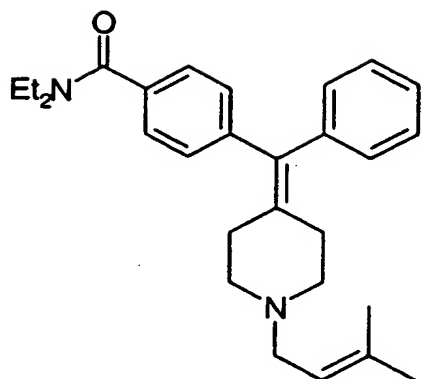
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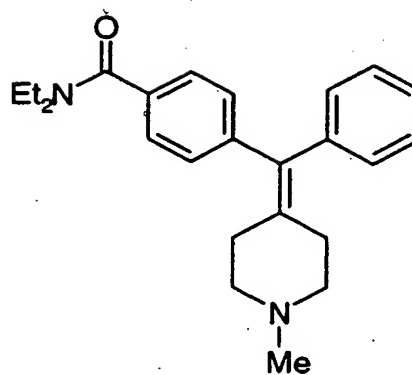
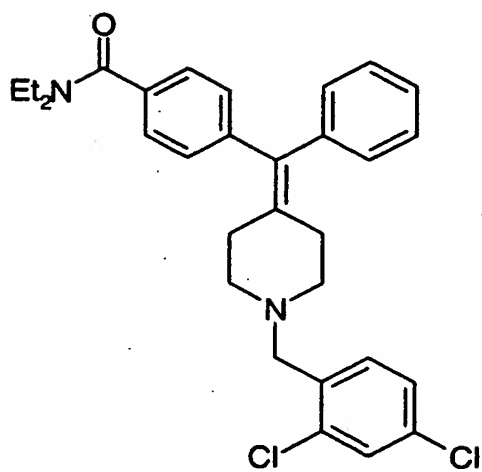




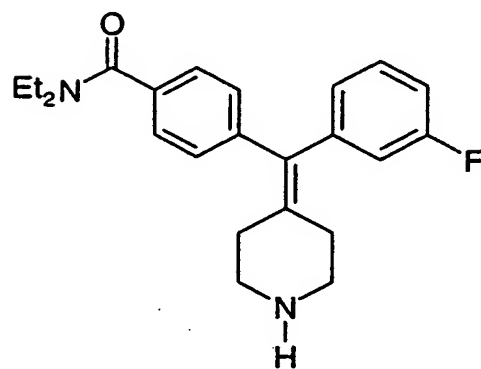
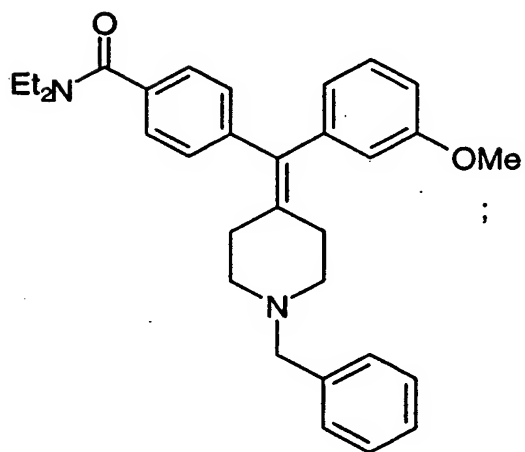
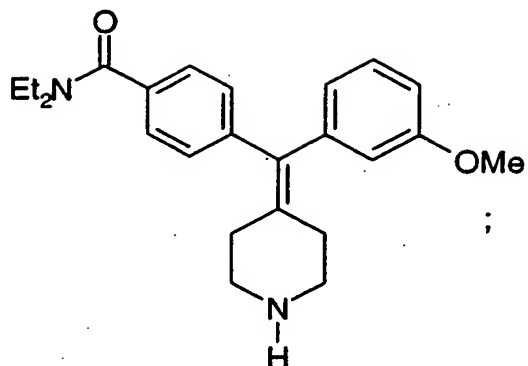
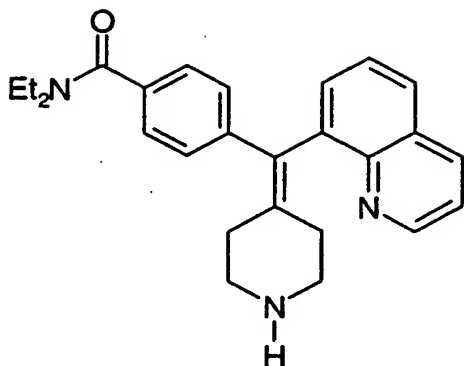
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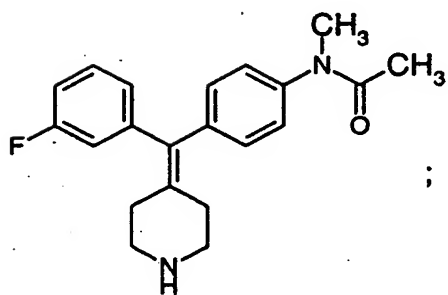
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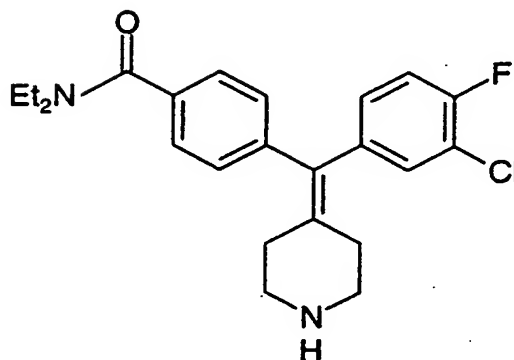
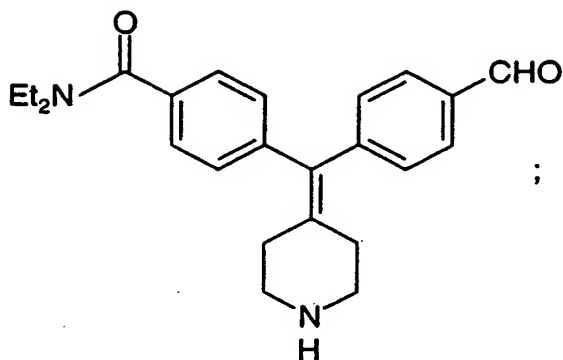
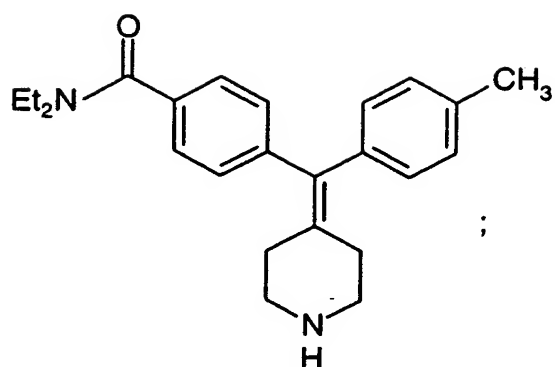
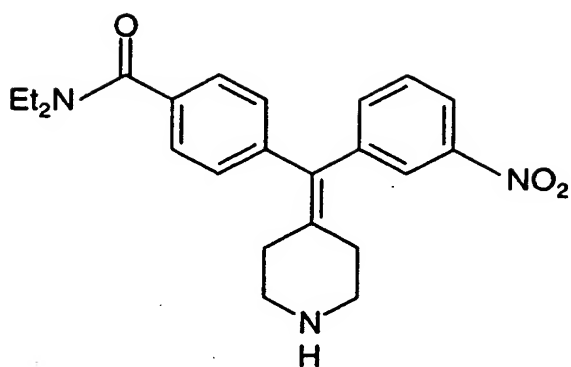


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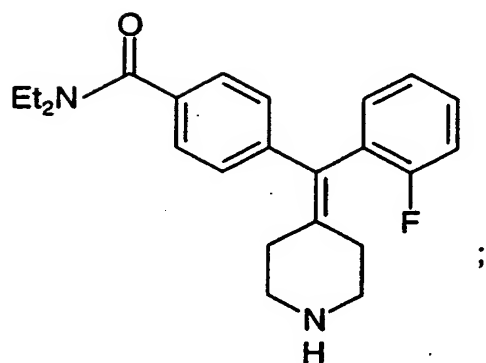
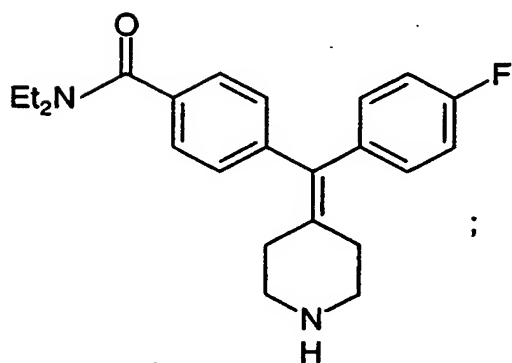


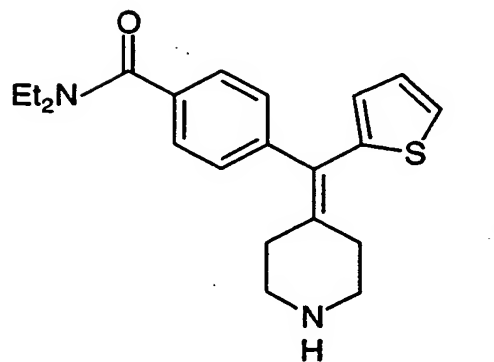
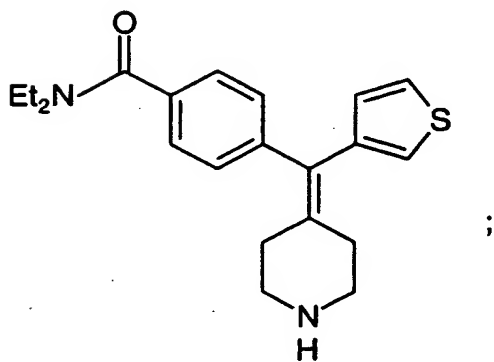
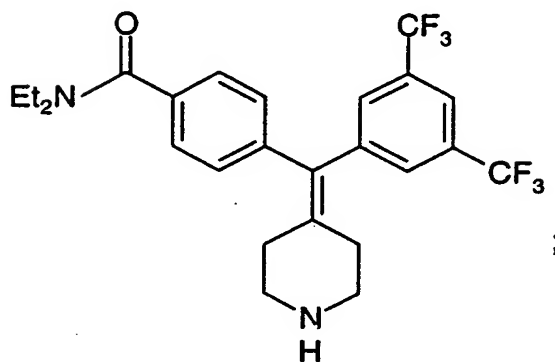
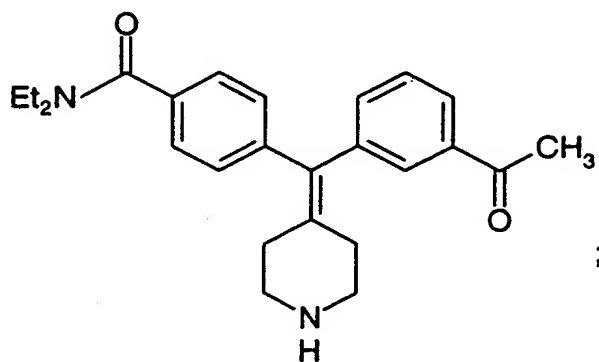
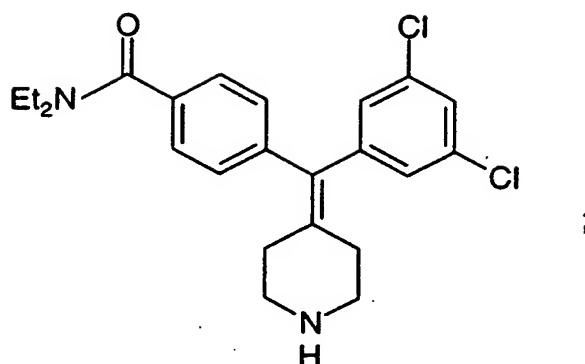
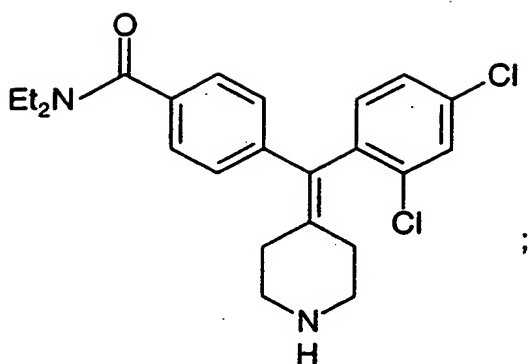
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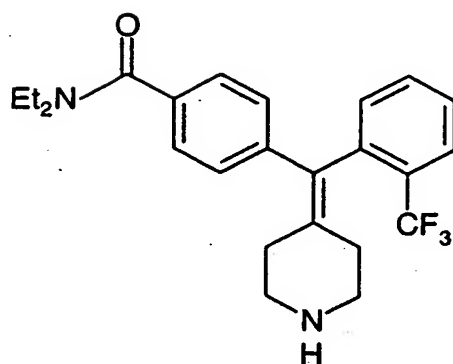
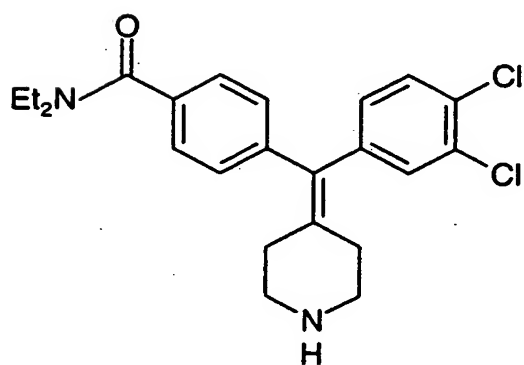
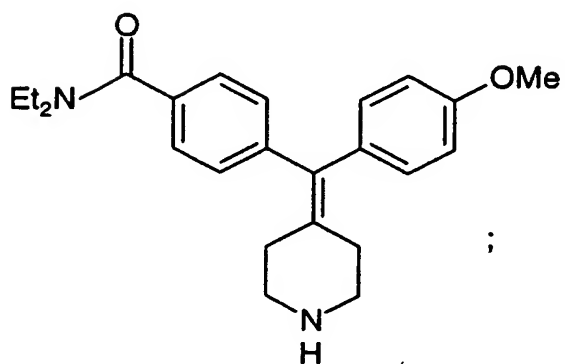
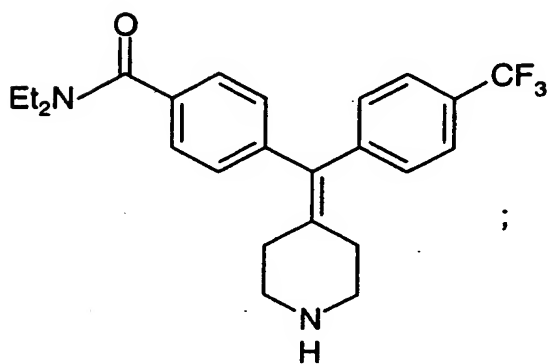
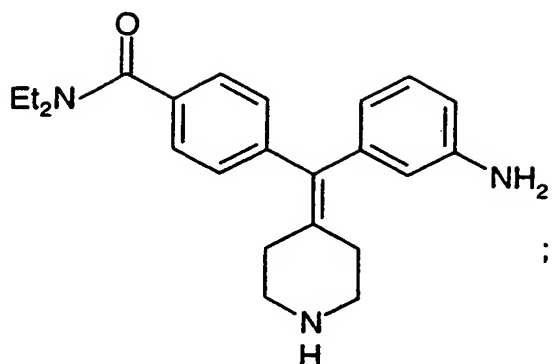
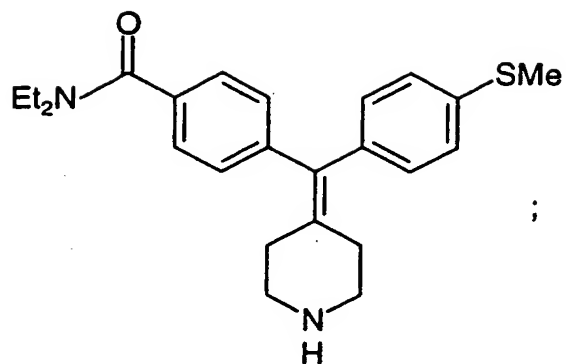


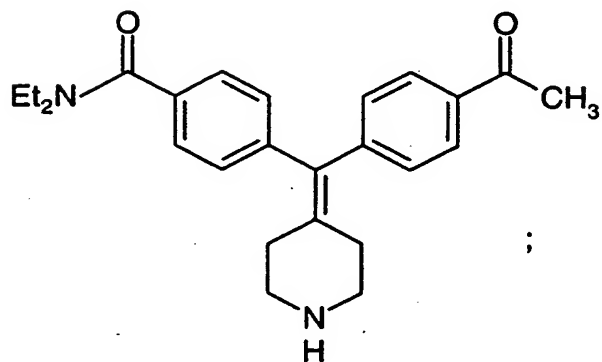
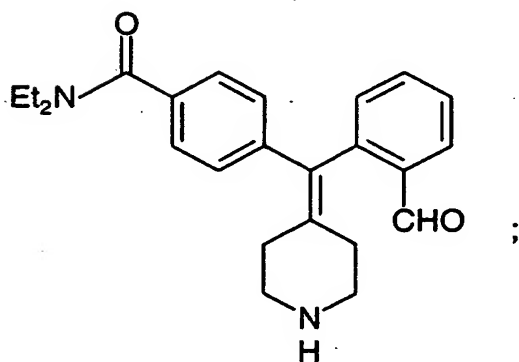
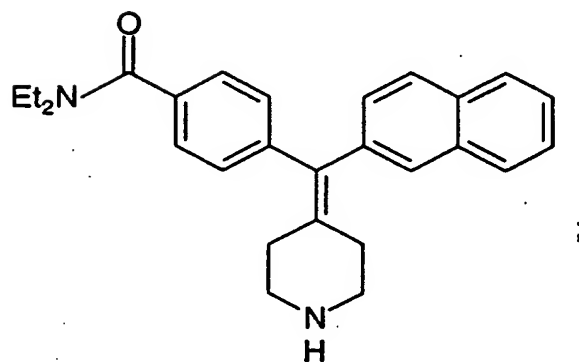
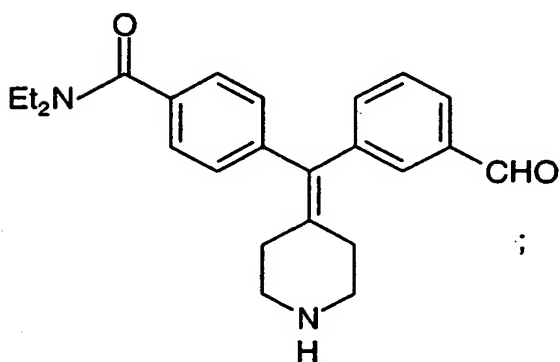
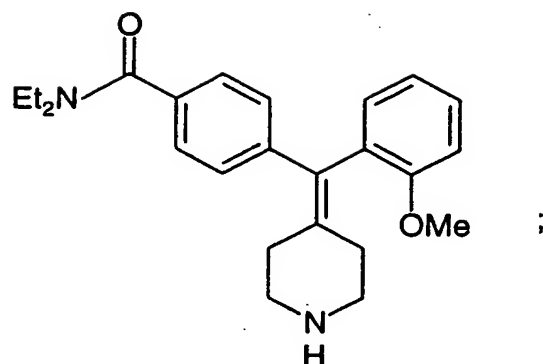
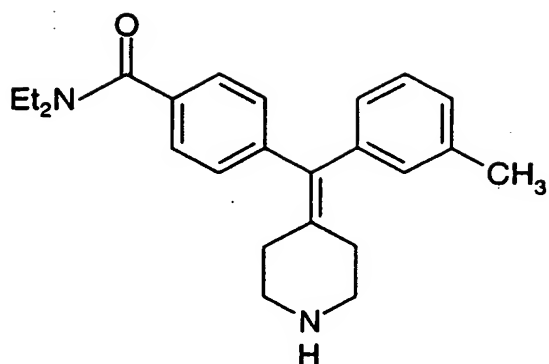


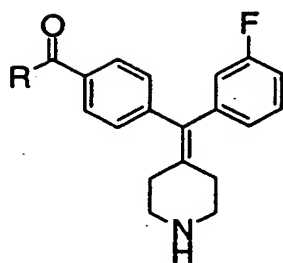
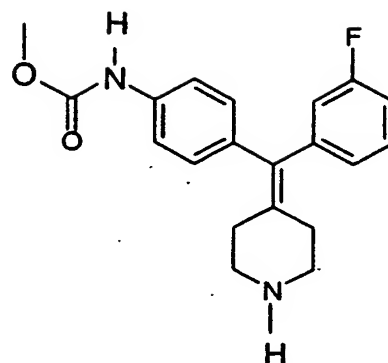
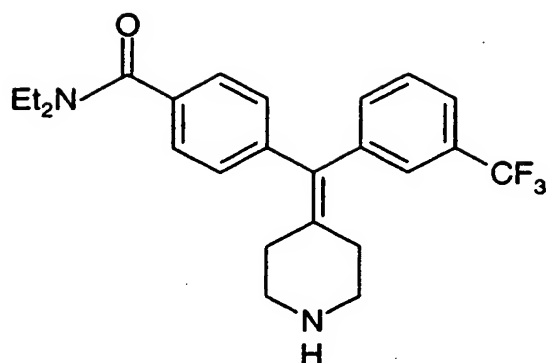
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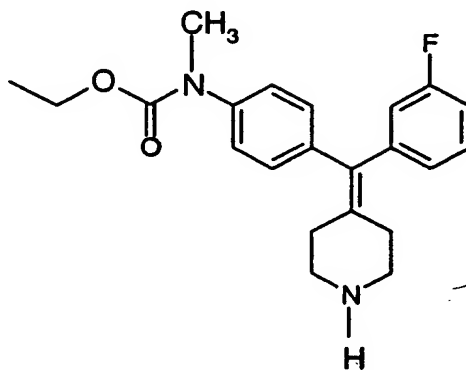
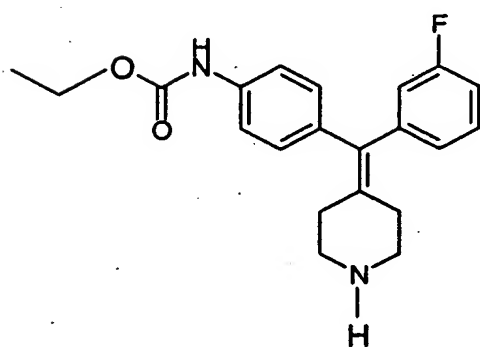




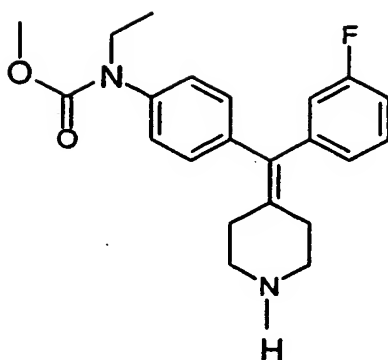
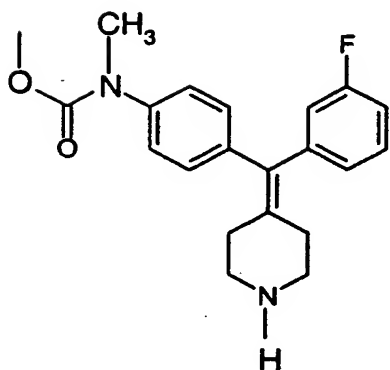
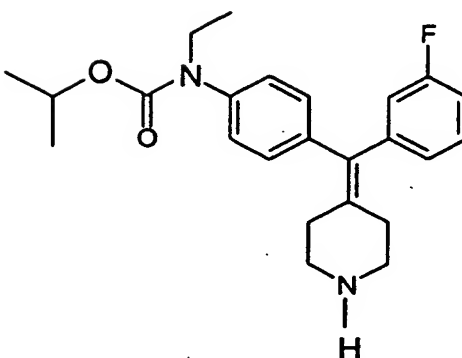
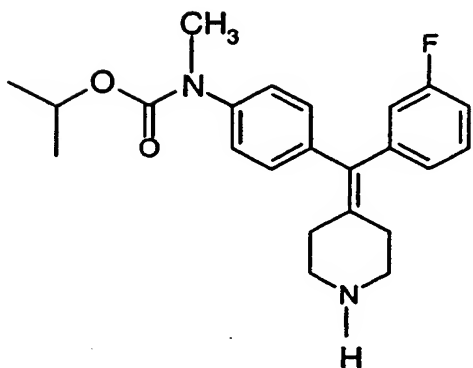
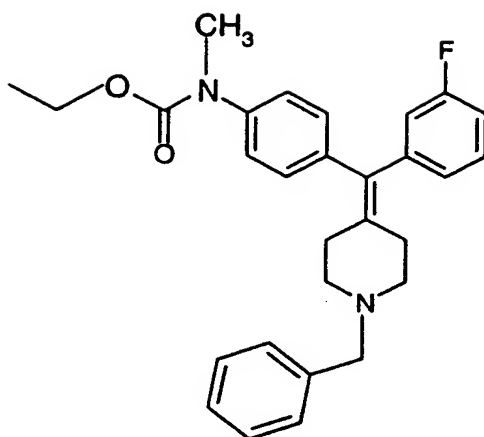
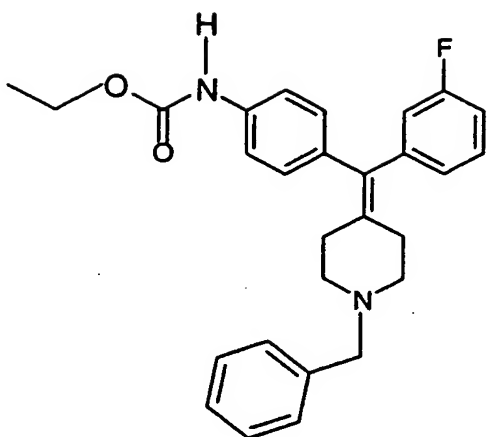


wherein R is morpholine, piperidine or pyrrolidine;

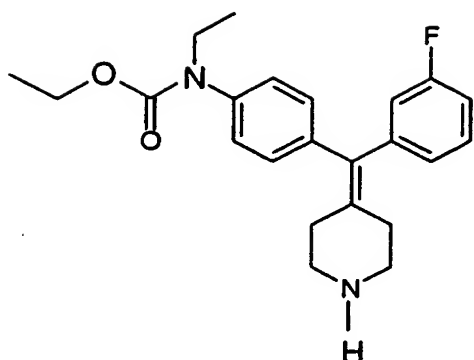
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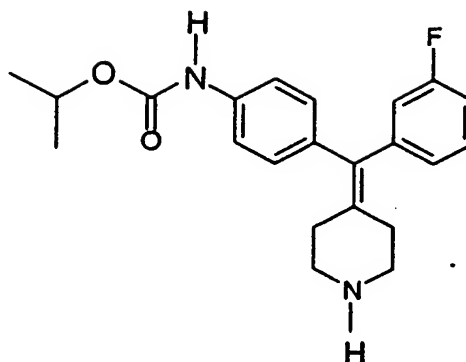
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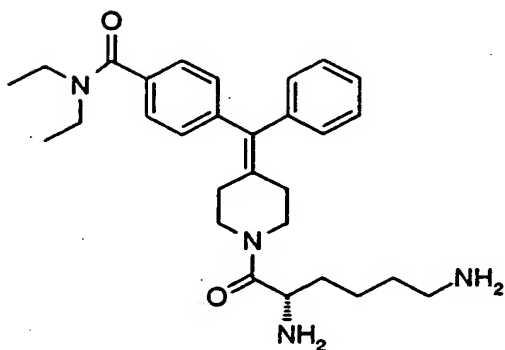




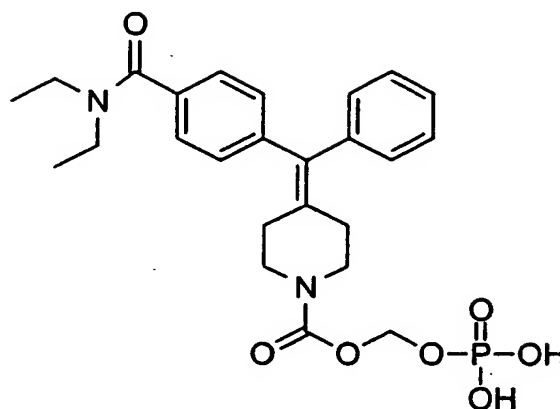
; and



5. A compound according to claim 1, which is selected from



and



6. A compound according to any of the preceding claims, in form of its hydrochloride, sulfate, tartrate or citrate salts.
7. A compound according to any of claims 1-6 for use in therapy.
8. A compound according to claim 7, wherein the therapy is pain management.
9. A compound according to claim 7, wherein the therapy is directed towards gastrointestinal disorders.

10. A compound according to claim 7, wherein the therapy is directed towards spinal injuries.

5 11. A compound according to claim 7, wherein the therapy is directed to disorders of the sympathetic nervous system.

12. Use of a compound according to formula (I) of claim 1 for the manufacture of a medicament for use in the treatment of pain.

10

13. Use of a compound according to formula (I) of claim 1 for the manufacture of a medicament for use in the treatment of gastrointestinal disorders.

15

14. Use of a compound according to formula (I) of claim 1 for the manufacture of a medicament for use in the treatment of spinal injuries.

15. A compound according to any of claim 1-7, further characterised in that it is isotopically labelled.

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16. Use of a compound according to claim 15 as a diagnostic agent.

17. An isotopically labelled compound of the formula (I) of claim 1.

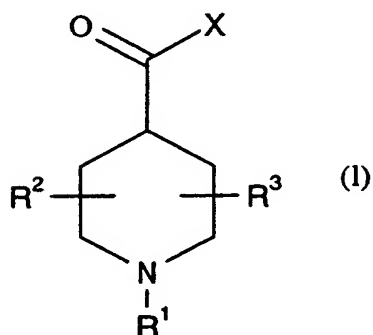
18. A diagnostic agent comprising a compound of the formula (I) of claim 1.

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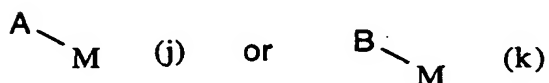
19. A pharmaceutical composition comprising a compound of the formula (I) according to claim 1 as an active ingredient, together with a pharmacologically and pharmaceutically acceptable carrier.

20. A process for the preparation of a compound of the formula (I) according to claim 1, whereby

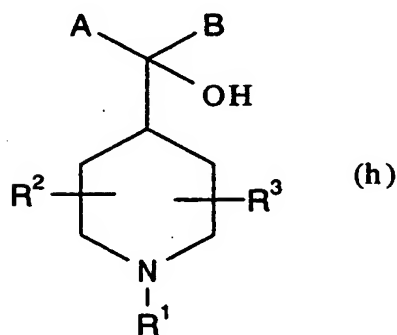
a) a ketone of the formula (I)



wherein  $R^1$ ,  $R^2$  and  $R^3$  are as defined in formula (I) of claim 1, and X is a leaving group, is reacted with an organometallic reagent of the formula (j) or (k)



wherein A and B are as defined in formula (I) of claim 1, and M is a metal group;  
and wherein the reaction is optionally performed in the presence of a solvent, giving a compound of the formula (h)

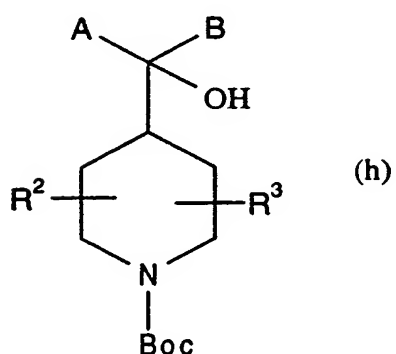


wherein A, B,  $R^1$ ,  $R^2$  and  $R^3$  are as defined in formula (I) of claim 1, and wherein  $R^1$  also may be tert-butoxycarbonyl.;

- b) the compound of the formula (h) is dehydrated, giving a compound of the formula (I) of claim 1.

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21. A compound of the formula

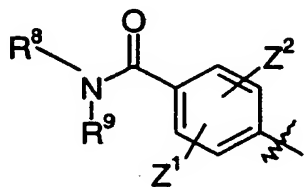


- 10 wherein A, B, R<sup>2</sup> and R<sup>3</sup> are as defined in formula (I) of claim 1.

22. A compound of the formula (h) according to step a) of claim 20, wherein

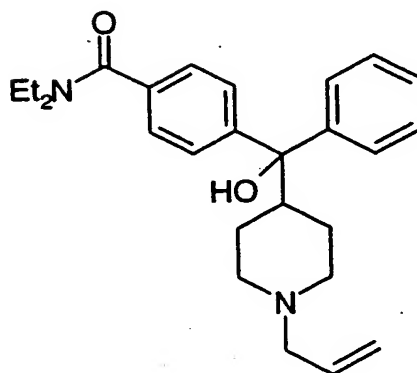
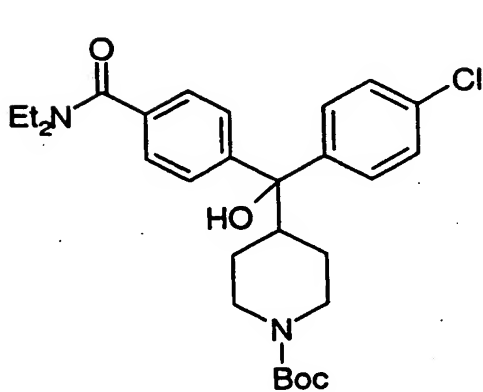
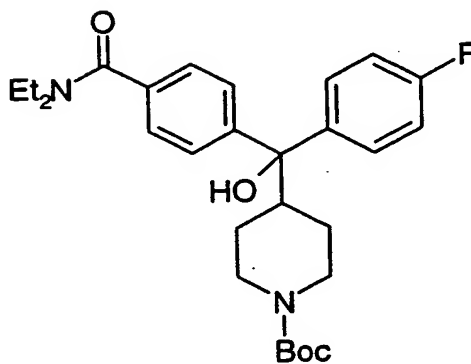
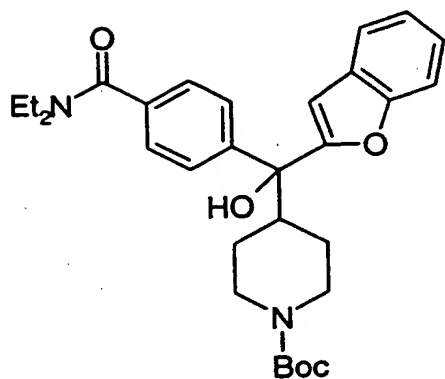
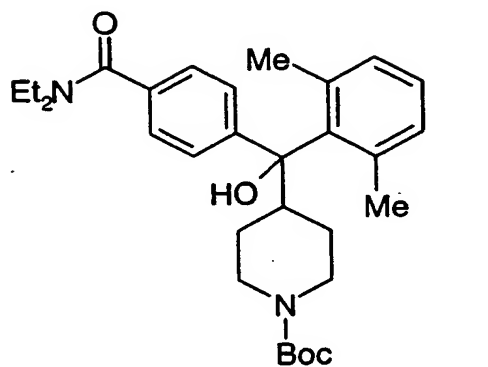
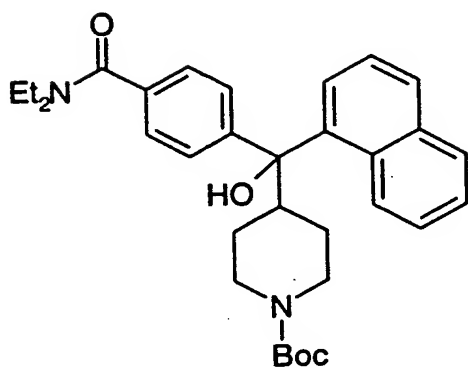
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A is

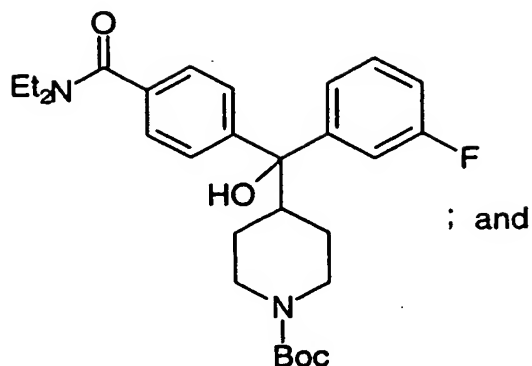
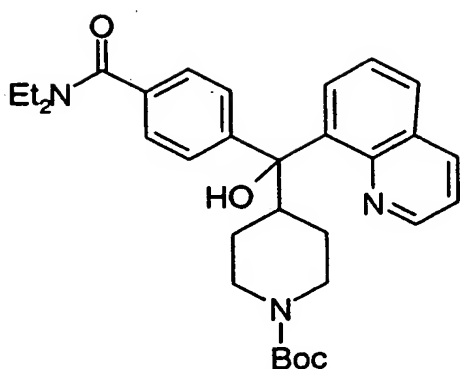


- wherein R<sup>8</sup> and R<sup>9</sup> are both an ethyl group, and Z<sup>1</sup> and Z<sup>2</sup> are as defined in claim 1.

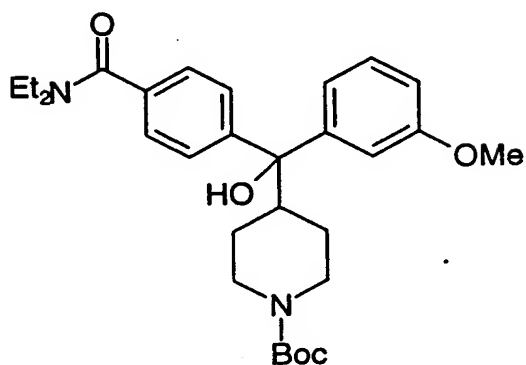
23. A compound according to claim 22, which compound is any of



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; and



24. A method for the treatment of pain, whereby an effective amount of a compound of the formula (I) according to claim 1 is administered to a subject in need of pain management.

25. A method for the treatment of gastrointestinal disorders, whereby an effective amount of a compound of the formula (I) according to claim 1, is administered to a subject suffering from said gastrointestinal disorder.

26. A method for the treatment of spinal injuries, whereby an effective amount of a compound of the formula (I) according to claim 1, is administered to a subject suffering from said spinal injury.